

**Furniture as Form: A Visual Investigation
Through the Drawer**

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NOTES

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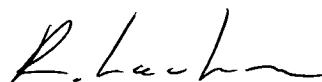
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Abstract

Furniture as form: a visual investigation through the drawer.

This project aimed to produce artwork through posing two questions: What are the responsibilities of the designer? How is it possible to create responsible design? This work has aimed to reassess my perception and understanding of design through the process of designing sets of drawers. The research resulted in furniture that questions our understanding of, and relationship to design. I define the term 'responsible design' as work which considers durability, longevity and a sense of ownership as essential components. This project has viewed design as a form of art, the designer as an artist, and has aimed to design meaningful objects for society.

The chosen medium was furniture and the investigation focused on a humble, everyday object - the drawer. The project explored the links between the drawer and the design process in an attempt to provide a better understanding of how design is a form of art through the examination of a process that gives a new perspective to what objects mean and how they might be understood and valued. The primary source for the research was the sketch and a simple rectangular paper cut symbolising the drawer. These forms expose what is often unexposed by design, revealing a process that creates an open visual dialogue with the viewer.

The context for this endeavour has been the examination of practitioners who explore design through their art process. Bruno Munari and Enzo Mari have been highly significant to this aspect of the investigation. Although the work of these artists is not solely furniture, their work of experimental design provided an important insight and for the creation of responsible design.

The project has resulted in the production of a series of drawers that reflect the complexity of the relationship between the design process and art demonstrating that responsible design is possible through a very simple, everyday household object – the drawer.

Acknowledgment

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Chapter one: Central argument

Introduction

This project aimed to produce artwork through two posing questions. How is it possible to create responsible design? What are the responsibilities of the designer? The research resulted in furniture that questions our relationship and understanding to design. Operating from the premise that design is a form of art and the designer is an artist; the aim was to design meaningful objects for society.

The chosen medium was furniture and the investigation focused on an everyday object – a chest of drawers. By exploring the links between the design process and the result, this project attempted to provide a better understanding of how design is a form of art. The primary source for the research was the sketch and a simple rectangular paper cut symbolising the drawer. These forms exposed what is often undefined by design. They revealed a process to create an open visual dialogue with the viewer.

The culmination of this project has been the production of a series of drawers which reflect the complex relationship between the design process and art. This demonstration shows that responsible design is possible through a simple household object – the drawer.

The function complex

Any established discipline evolves through a long process of defining and redefining its parameters, including its language, methodologies and ethics. I have looked at the responsibilities of the designer as a discipline from 1919, when Walter Gropius founded the Bauhaus at Weimar. Part of the prospectus of this school reads:

We know that only the technical means of artistic achievements can be thought, not art itself. The function of art has been given a formal importance which has severed it from our daily life; but art is always present when people live sincerely and healthily.

Our job is therefore to invent a new system of education that may lead – by way of a new kind of specialized teaching of science and technology – to complete knowledge of human needs and a universal awareness of them.

Thus our task is to make a new kind of artist, a creator capable of understanding every kind of need: not because he is a prodigy, but because he knows how to approach needs according to precise method. We wish to make him conscious of his creative power, not scared of new facts, and independent of formulas in his work.¹

¹ Munari, B. *Design as Art*. Middlesex: Penguin Books Ltd, 1971.p27.

The Bauhaus initiated the first experimental course to establish a formal education that appropriated wisdom from everyday life. They removed aesthetics from their design process in order to isolate function and form as individual variables. Victor Papanek also investigated the role of function within the design process. In his book *Design for the Real World*, Papanek analysed the roles and power of the designer. He called this the complexity of function. He stated:

The mode of action by which a design fulfils its purpose is its function. 'Form Follows Function' Louis Sullivan's battle cry of 1880s and 1890s, was followed by Frank Lloyd Wright's 'form and function are one'. But semantically, all the statements from Horatio Greenough to the German Bauhaus are meaningless. The concept is that what *works* well will of necessity *look* well, has been the lame excuse for all the sterile, operating-room-like furniture and implements of the twenties and thirties.²

Papanek argued that function and aesthetics should not be mutually exclusive. Instead of reinstating aesthetics as having equal standing to function in design, he maintained function as central to design. In the following diagram he described the dynamic actions and relationship that make the function complex³.

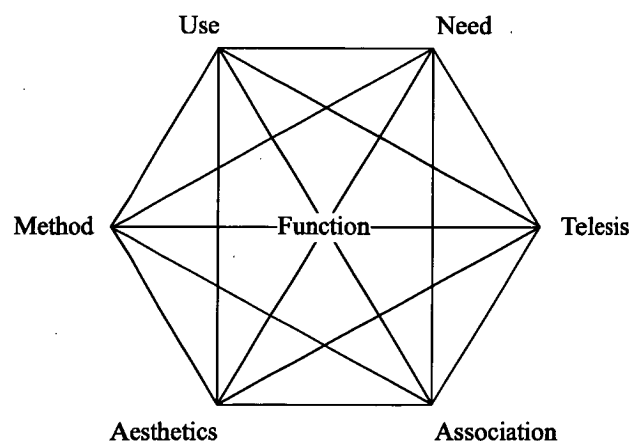


Figure 1

² Papanek, V. *Design For The Real world*. New York: Bantam Books, 1971, p 25.

³ Ibid, Page 26

However, this function complex is flawed in that it leads to a lack of understanding in the attempt to reformulate design. Each of the elements drawn from the Bauhaus and Papanek's function complex are valid interpretations of the Bauhaus manifesto. Nevertheless, the function complex goes only part way in explaining design since function is only a *part* of the whole - a segment of design, rather than the central theme of design.

Papanek argues that a dining table designed by the Bauhaus approach of '*form follows function*' looks like a table 'to lie down on (it) and have your appendix extracted. 'Nothing about the table says: Dine off me'⁴. But is it possible to design a table whose only function is to invite dining? And if we were to consider the other functions of a table - writing, reading, gathering, or as a place of contemplation – do we then have to design a different table for each of our needs, filling our space with dozens of tables? Or perhaps we have to design a single 'Swiss Army' knife table with multiple functions?

I believe a table is more than a functional object. It can also exist as a sculpture, an artwork. My research argues that design today has a significant responsibility beyond form, function and aesthetics. Designers are not only responsible for designing objects for our society but for educating society as well. The discipline of design needs to be viewed critically, as a form of art and as a tool that serves society. The designer is in a special position between the maker/manufacturer and the owner of the object and can influence both parties. The designer has the foremost influence over how things are made; the use of material; how they are constructed; and their longevity. My project has focused on these issues. By experimenting with an elementary household object, the drawer, I have demonstrated that a bond can be created between objects and people, which result in a responsible designer and design.

⁴ Papanek, V. *Design for the Real World*. New York: Bantam Books, 1971. p 25

The merit of design

The identity of the designer as an artist has been lost in deference to science and technical skills. Design was once considered an extension of the arts. The ancient Greeks had one word for 'arts' and 'crafts', *techne*, which can be translated as 'technology'⁵. Today art and design are separate disciplines but in order for people to value design, design needs to receive the same level of recognition as art.

Art and design emerge from the same foundation, yet they are acknowledged as diverse fields. The word art as defined in the compact edition of the Oxford as 'skill in applying the principles of special science; technical or professional skill'⁶, is analogous to the definition of design. The word design is defined as 'a plan or scheme conceived in the mind and intended for subsequent execution; the preliminary conception of an idea that is to be carried into effect by action; a project'⁷. It is also 'a plan of art'⁸.

Design is an extension of art as Enzo Mari stated, 'In works belonging to the art and contestation sections a creator can shoulder almost all the responsibility; instead in design the responsibilities are multiple.'⁹ The artist is more responsible for his own ideas. The designer's responsibilities extend beyond himself particularly in the area of production, due to the complexity of manufacturing.

Design is mostly recognised as products constructed through the utilization of technology. While art and design tend to be considered separate disciplines today, I believe they are interlinked. The art of design is a process that merges form, function, needs, materials, manufacturing, aesthetics and designing for society. Design is a form of art but in order for people to value it, it must be reviewed critically as a form of art.

⁵ Morley, J. *Furniture the Western Tradition*. London: Thames & Hudson, 1999, p 262.

⁶ The Compact Edition of the Oxford English Dictionary' Oxford University Press. 1971.

⁷ Ibid

⁸ Ibid

⁹ Burkhardt, F & Capella, J & Picchi, F. *Why Write a Book About Enzo Mari*. Milan: Federico Motta Editore, 1997. p76.

In the world before design was established as a discipline, objects evolved through the technical development work of engineers, architects, and craftsmen. Bruno Munari points out that 'many articles of design had existed long before the term 'design' became part of contemporary culture.' Munari proposed presenting awards to the unknown designers of our most common and useful objects today, such as the folding chair, due to the fact they are well made and not solely because they bear a signature.¹⁰

Early design materialized outside an academic environment. Henri Petroski analysed everyday objects from forks to paper clips to zippers to consider the development of the initial need to the evolution and actualisation of the object.¹¹ The development of design as a discipline created a need to understand and define design for study and education. Over the years this led to a restricted view of design, one that was concerned with rationalization and placed an emphasis on engineering and science. The discipline of design itself is thus problematic. As Nigel Cross explains:

The infant discipline seemed, thirty years ago, to have been founded on a disrespect for design ability and with a strong desire to 'scientize' design...There are still those, outside the discipline of design studies, who regard design as ineffable, and there are still those, within but on the fringes of the discipline, whose lack of understanding of design ability still leads them into attempts to reformulate design activities in inappropriate ways¹².

Those who have attempted to reformulate design in inappropriate ways have restricted the discipline limiting its possibilities as a form of art and views about the designer as an artist who works for the benefit of society. As a result, design is viewed as a discipline which has an emphasis on function and technical studies rather intellectual and conceptual thinking.

¹⁰ Tanchis, A. *Bruno Munari: Design as Art*. Cambridge, Massachusetts: The MIT Press, 1987. p 94.

¹¹ Petroski, H. *The Evolution of Useful Things*. New York: Vintage books, 1994.

¹² Cross, N. *Discovering Design Ability* in Buchanan, R & Margolin, V. *Discovering Design*. Chicago: The University of Chicago Press, 1995. p 105.

Throughout history, design has been a reflection of the ideologies of society. The Shakers designed and created in the image of the life they wanted to lead, preaching simplicity within form. From the first manifesto in 1919, the Bauhaus concentrated on the reconciliation of the arts and trades until the formalism of the 1930s.¹³ When design today is reduced to the limits of technical capacity, it loses what had formerly been its strength and originality: a vision of the world, a focus on the needs of society and a leading ideology to which techniques are submitted.

These ideas have formed the basis of my approach to this project. I have viewed design as an art form created work that reflects responsible, sustainable, yet creative design.

My chosen medium for this project was furniture and my investigation focused on a humble, everyday object - the drawer. While the project was about the drawer, the intention was not to investigate the history of the drawer.

I began by creating a symbol of the drawer in order to develop a process for working. This symbol functioned as a tool enabled me to visually investigate and develop my ideas. My intentions were to explore the responsibilities of the designer and to create sets of drawers that utilise function and technical studies but also intellectually and conceptually reflect my view of contemporary design and independent from a commercial reaction to mass production and the machine.

¹³ Margolin, V & Buchanan, R. *The Idea of Design*. Cambridge, Massachusetts: The MIT Press, 1996. p 27.

The primary source for this process was the sketch and a rectangular paper cut symbolising the drawer. This symbol presents the development and evolution of form I used in this project. Using these tools I have attempted to show that the design process is a form of conceptual art.

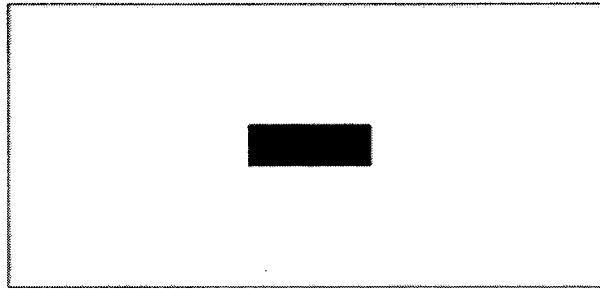


Figure 2

Necessity

I view contemporary design as a commercial reaction to mass production and the machine. The industrial revolution in the late 19th century changed the pace at which we live. In the last century the cycles of development have been relatively brief and rapid compared to the past when evolution was a gradual process. Today, art movements, technology and styles change at a pace akin to a production line. For any object I consider designing, one question that I always ask is 'Why design this?' There are already countless objects surrounding us in our lives and for me it is necessary to question *why* I should produce even one more. When Enzo Mari was asked to theoretically design a chair, he responded:

I know that there are 300,000 chairs; I know the 100 ideal chairs are the right ones; then I know the models of the first 1000 copies, then the second 10,000 that are copies of the first 1000 copies, then 50,000 copies at the third level... and so on in never ending numbers. An industrialist asks me to make a chair... the first thing I do is spend three days convincing him to do a different project. ¹⁴

¹⁴ Burkhardt, F & Capella, J & Picchi, F. *Why Write a Book About Enzo Mari*. Milan: Federico Motta Editore, 1997. p12.

As a result of commercial design and the mass production that surrounds our society, a disposable culture was born. This project is concerned with responsible design rather than disposable design. Dowling¹⁵ explores the roots of disposable culture in his biography of King Camp Gillette, the inventor of the disposable razor blade:

King, Painter exclaimed to his friend one day, 'you are always thinking and inventing something. Why don't you try to think of something like the crown cork, which once used, is thrown away, and customers keep coming back for more - and with every additional customer you get, you are building a foundation for profit?

This mentality was one of the biggest cultural changes to affect our present society. It began a 'use and throw away' civilization. As society adopted disposable objects, industries and manufacturers began to design with an emphasis on short-term life, designing objects for fashion rather than necessity. The longevity factor of a product, creating objects for life, was no longer a factor¹⁶.

There are numerous examples of disposable products' proliferation that contributed to social and cultural changes. In the early 30s, Kimberly & Clark invented the tissue (Kleenex), for women to remove their makeup. Soon after, the tissue was used to clean the nose. This disposable product terminated handkerchief culture.

¹⁵ Dowling, T. *Inventor of the Disposable Culture King Camp Gillette 1855 – 1932*. London: Short Books, 2001. Pp.20-21.

¹⁶ In 1970, Alvin Toffler wrote *Future Shock*, warning society about the consequences of a pay and throw mentality and the negative ways in which it would affect our lives both aesthetically and socially. Today, we see Alvin Toffler's warning realised, where a disposable culture and disposable products drain into all aspects of our lives.

In the 1950s Marcel Bich changed the practice of the fountain pen by manufacturing the disposable BIC ballpoint. Today BIC sells 22 million stationery products every day. In 1961 Proctor & Campbell developed the disposable nappy, creating one of the biggest sources of non-biodegradable waste in the world. Daschefski stated:

It may seem surprising, but most environmental problems are caused by unintentional side effects of the manufacture, use and disposal of products...over 30 tonnes of waste are produced for every one tonne of product that reaches the consumer. And then 98 per cent of those products are thrown away within six months.¹⁷

From the last 20 years hundreds of disposable products have become part of our lives, from the first disposable camera by Fuji (1988) to disposable contact lenses. Computers are disposable because they are technologically outdated so quickly. Style and fashion are also a substantial part of our superfluous lifestyle. Designing disposable products has little interest in encouraging longevity and quality.

Disposability increases the gap in the dialogue between design and consumers. By abrogating the originality of the object as art a society emerges without a bond or emotion for objects. Through my drawer I have attempted to create a bond between objects and people. I have placed a strong emphasis on the durability of objects for a lifetime. This required a closer look into the development process of designing the drawer using specific materials in an attempt to create responsible design.

¹⁷ Daschefski, E. *Total Beauty of Sustainable Product*. East Sussex: RotoVision, 2001, Pp16-17.

Motivation

The short life of objects creates an endless pursuit of the new. Our lives are dominated by sacrificing quality for the pursuit of instant gratification. This changes the way we purchase our products and it changes the relationship between people and objects. In his article, *Let's Design as if Humans Mattered*, Seymour argues:

Somewhere, during the closing years of the 20th century, something happened to design. Philosophic rigor dropped out of the equation. We started doing things because we could, rather than because we should. We stepped across millennial threshold, leaving behind a catalogue of unsolved, everyday problems, yet we look with hope and trepidation, towards advanced technology to set this straight. What happened to problem solving? What happened to simplicity? What happened to good old-fashioned relevance?¹⁸

Instead of designing objects as tools with the means to improve our lives, contemporary design has become a tool of new trends, styles and consumerism. What is the style for design? Bruno Munari defines styling as 'a kind of industrial designing, and of all branches of design the most ephemeral and superficial. It does no more than give a...contemporary 'look', to any object whatever'¹⁹. What styling creates is a 'costume', a form of cosmetics made out of materials, which won't last for long. Styling and fashion tell you that what you have already bought is no good, because a new product has already been created. Industries such as clothing rely on new fashions, exhibiting the next year's 'summer collection' before winter has even started. Television commercials and magazine articles show us how easy it is to change our home as rapidly as the seasons or how to use decor from around the world with styles that range from Aboriginal to Asian.

¹⁸ Seymour, R. 'Let's Design as if Humans Mattered' *Domus*, V838 Italy. June 2001. Pp124-127.

¹⁹ Munari, B. *Design as Art*. Middlesex: Penguin Books Ltd, 1971. Pp 45-48.

The result of a fashion driven culture is that artists and designers are confined to the activities of styling or streamlining, which limits them to working with existing products, rendering them more aesthetically pleasing and easier to market.²⁰ One consequence of this type of product/people relationship is the effect on local industries. Industries and manufacturers designing new fashionable products are putting less and less emphasis on longevity and quality. Since aesthetics change rapidly, people today are more likely to buy something new rather than repair their old objects. Heirlooms, such as clocks, watches and furniture from previous generations seem like an outdated tradition. Tailors, shoe repairers and clockmakers are becoming redundant.

In Japan disposable culture is resulting in ancient skills being lost. For example, Hideyuki Oka, in describing the craftsmanship of traditional Japanese packaging in his book *How to Wrap Five More Eggs*²¹, explains how materials and traditions are disappearing, techniques are being lost, and the highly developed techniques and wisdom that came from everyday life are departing from their culture.

In response to disposable culture, there is a renewed emphasis on creating a greater awareness about resource use and our natural environment. Society is trying to develop a sustainable environment and manufacturers and designers who are aware of our disposable culture have set about “designing” new ideologies. One of these movements is in the form of ecological design, which focuses on recycling and responsible material choices. As Buchanan says, ‘the strongest ideology is certainly born from a realization of the dangers with pollution and depletion of resources that are confronting society. Ecological design must be an example of ideology that inspires the conceptualization of products.’²² However there is also a design backlash in response to today’s disposable culture. Many designers have renewed emphasis on responsible resource use and awareness to our natural environment.

²⁰ Munari, B. *Design as Art*. Middlesex: Penguin Books Ltd, 1971. Pp 45-48.

²¹ Oka, H. *How To Wrap Five More Eggs, Traditional Japanese Packaging*. New York and Tokyo: Weatherhill, 1975, Pp7-8.

²² Margolin, V & Buchanan, R. *The Idea of Design*. Cambridge, Massachusetts: The MIT Press, 1996, p 25.

One of the main problems I see in contemporary design is longevity and social responsibility. If it is possible to create a bond and a sense of awareness between people and our natural environment, then perhaps we can also create a similar connection between people and objects. This, in turn, would make consumers truly value the products they purchase and perhaps reduce the extent of the disposable attitude. I reviewed different ways to design for a 'responsible consumer'. My research has aimed, through the drawer, to create a bond between people and objects.

I believe that design today has a significant responsibility beyond form and function. The designer today must take part in the efforts of global awareness and education. When a student graduates from medical school, they must take the Hippocratic Oath; in a similar way a designer's oath today could incorporate the influence and responsibilities of the designer.

I believe that the foundation of design and art is to create cultural awareness through their fields. We are creating a society that lives without any bond or emotion to objects, abrogating the originality of the object as art. As long as we design fashionable and disposable products we are encouraging disposable culture and adding to the gap between design and people.

Through the process of making the drawer, I have tried to solve problems associated with the longevity of objects and the social responsibility of the designer. With industrialization affecting every aspect of our lives, a refocus on local makers and manufactures would help to generate a renewed interest in durable and truly valuable designed products. The return to local craft manufacturers creates a link between the designer/maker and the consumers' needs are met individually rather than en masse. This model could lead to lower rates of waste as people's needs are met directly. Throughout my project I looked for ways to maintain the conventional techniques and skills of carpentry. I also made my set of drawers by the use of local materials. My intention was to combine contemporary design with tradition.

The motivation driving my research was the desire to help solve the effects of a disposable culture through my beliefs about the role of the designer. My aim was to design meaningful objects for society. I have attempted to create a bond between the drawer and its owner in an effort to confer the impact of disposable design. I have shared my design process through a two dimensional presentation that aims to create a dialogue between object and viewer, hence strengthening the bond between them. I began by constructing a diagram that showed the responsibilities of the designer:

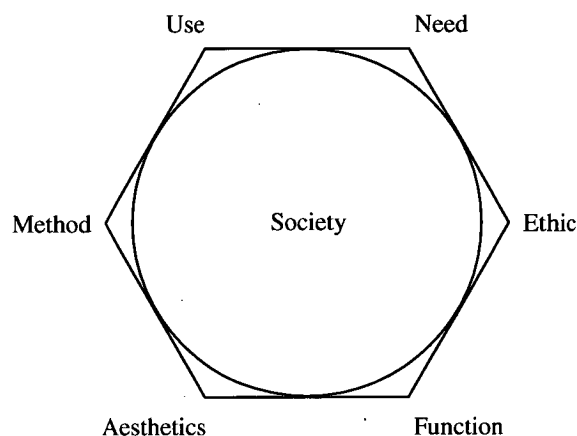


Figure 3

The challenge of this project was to use a conceptual idea as a way to investigate form. I created a design process that attempts to inspire creativity, invite curiosity and develop knowledge. The aim was to design inventively for contemporary society without deferring to mass production. I wanted to maintain traditional skills and knowledge within the design process while embracing traditional skills and techniques. I sought ways to merge these responsibilities to in a way that reflects the complexity of the relationship between design and society.

This research is about designing a process, demonstrating the designer as an artist and the design of meaningful objects for society. I have used the drawer as a way to express my understanding of what I believe constitutes value, through their making, the use of material, the construction and longevity.

Chapter two: Context

Design Artist

Many artists and designers have influenced this research project. My philosophy of design has been predominantly inspired by Italian design due to its conceptual simplicity. Two designers, Bruno Munari and Enzo Mari have been particularly important to this project. These designers/artists not only share the same cultural history but also share similar perspectives on design which have contributed to my understanding of the design process. Munari and Mari believe that the designer is an artist for society and design is art. They constantly seek ways of reviving tradition in combination with contemporary design. They believe design is instigated by a relationship between the artists and the production of objects. Munari and Mari's works serve as examples of the spirit of Italian design. Their work reflects a partnership between design and industry that involves a successful collaboration between flexible productions. Their quest has been to create a relationship between designers and society.

Munari saw design as an opportunity for the exploration of historical identity and for play. He wanted to understand what kind of quality could produce the 'unthought', and then applied his findings to design. By doing this, he produced art relevant to industrial applications of art. Mari's 'Art as Knowledge'²³ was based on observations from every day life and wisdom derived from years as a practitioner. His ideology was to retain this archetypal form of knowledge, to transform it and create a link between it and the industrialization process. Burkhardt...et al states that: Mari's research is an essential instrument of verification that entails the need to not lose sight of 'the pragmatic side of cultural activity'²⁴.

²³ Tanchis, A. *Bruno Munari: Design as Art*. Cambridge, Massachusetts: The MIT Press, 1987. p 96.

²⁴ Burkhardt, F & Capella, J & Picchi, F. *Why Write a Book About Enzo Mari*. Milan: Federico Motta Editore, 1997. p 36.

Design as Art

For my research Munari represents the philosophy and the intention to invite curiosity and Mari represents art as knowledge and wisdom through craftsmanship. An example of Munari's attitude was a performance he gave entitled '*showing the air*', an action-come-demonstration held in Como in 1969. A number of 'shapes revealing the air' were thrown from the top of a tower, simple sheets of paper, folded in various ways, which followed different trajectories in their fall, depending on their shape and the movement of the air.

One of the most important qualities of Munari's work was his research which explored everyday natural phenomenon, as in '*showing the air*'. Through this work Munari aimed to close the gap between artist and the ordinary man. Where the artist and the ordinary man, for once, are not opposite poles of an impossible duality, but coexist in harmony.

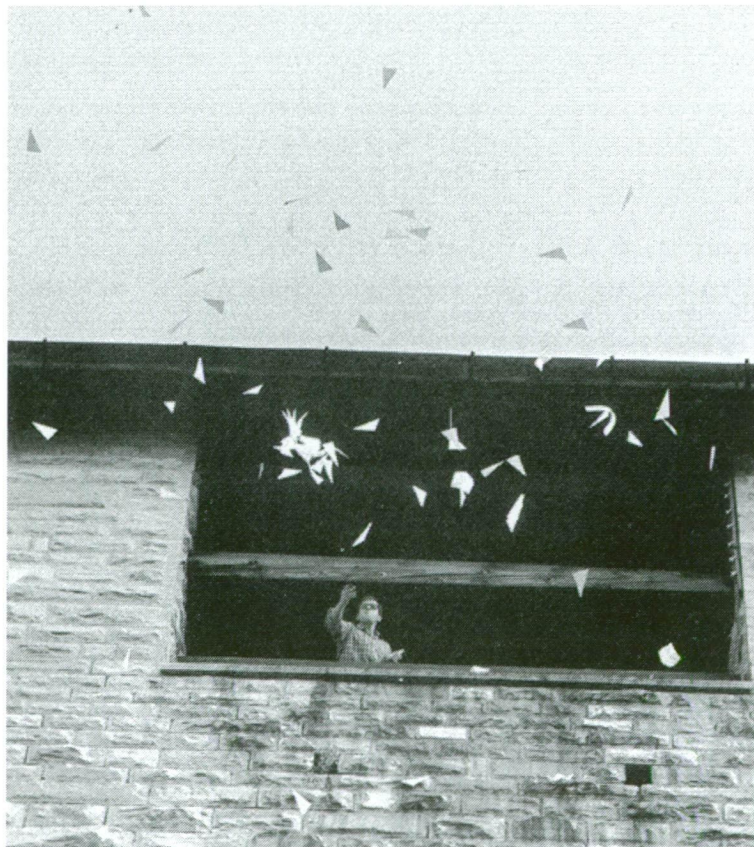


Figure 4

Munari was influential not because he imposed a particular style or look, but because he encouraged me to go beyond formal conventions and stereotypes and how to widen perceptual awareness. Munari's research is vast. His field of studies has included the structure of nature and observation on the evolution of forms. Munari's structural studies of nature were extensive, from visualising the air to cutting an Iris flower across the middle.

'...And you will see how all its parts are arranged before the flowers open', adding an illustration of the middle cut of the flower. '...Before they open their violet petals with a kind of yellow scroll in the middle, that is the time to pick a flower and take it home. Take a razor blade and cut it clean...' ²⁵

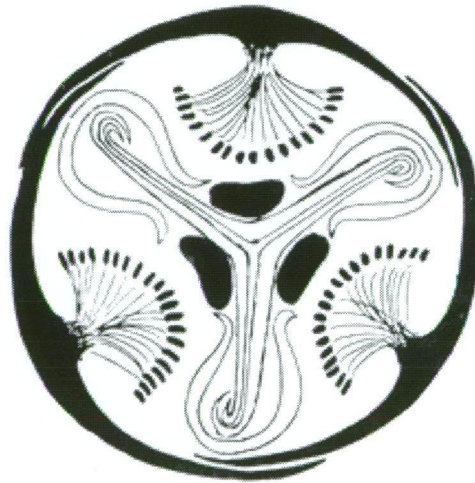


Figure 5

Munari believed a hidden soul existed in objects. Perhaps he did not believe in death, or in the existence of unusable areas of material life. He believed culture did not reside in finished products, but in the act of making them. Culture was therefore not found in the result, but in the process ²⁶.

²⁵ Munari, B. *Design as Art*. Middlesex: Penguin Books Ltd, 1971. p 157.

²⁶ Tanchis, A. *Bruno Munari: Design as Art*. Cambridge, Massachusetts: The MIT Press, 1987. p 94.

Munari designed work that inspired a sense of curiosity that was not based on artistic technique. Without curiosity, the desire to question and gain knowledge is limited. Without these how can we identify our needs? The simple idea of 'showing the air' with sheets of paper was an attempt to reveal the unseen. This performance draws your attention to what is normally unseen.



Figure 6

Munari created a world without restrictions and designed a series of books to invite curiosity, enhance observation and inspire creativity. 'ALLA FACCIA'²⁷ which translates to 'At the face', is a book of simple sketches that use line drawings to create facial expressions. Munari said: this is an experiments to show in how many ways and with what techniques can one produce variations on the human face from the front'²⁸. The work was an exercise to explore facial expressions through the use of different drawing and techniques.

²⁷ Munari, B. *ALLA FACCIA*. Mantova: Maurizio Corraini. 1992.

²⁸ Munari, B. *Design as Art*. Middlesex: Penguin Books Ltd, 1971. p 55.

Through the use of straight lines, curves, India ink and dotted lines, Munari played with various narratives of a facial expression. The book contains a list of words that describe human emotions like happy, sad and angry which are accompanied by the drawings. I use a similar technique to create my paper cuts and sketches. From one single form - the rectangle - I designed different variations and selected one out of the hundreds to make a drawer.

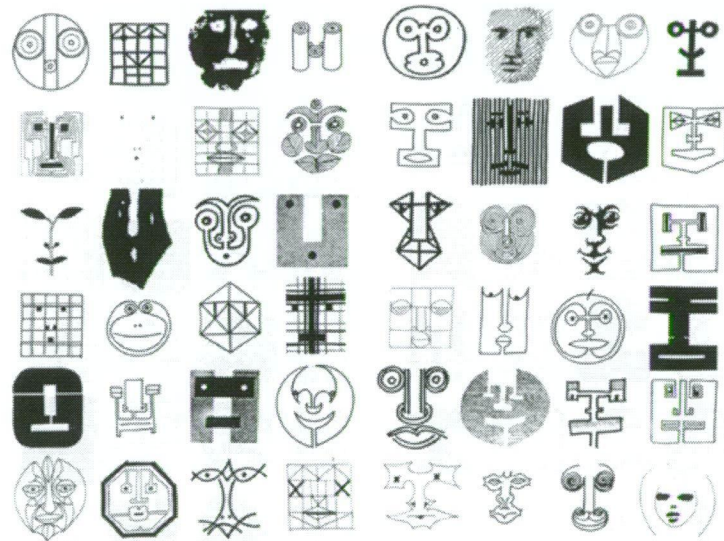


Figure 7

I found Munari's books inspirational, not only for his philosophical approach to design, but for his ability to search for artistic ideas and share them. Munari invites a closer look into his works which illuminate his design process. He shares his own sense of curiosity and thus provides insight into his artworks. He translates and constructs new meanings for the words *creativity*, *inventiveness* and *process*. These words are used often and loosely within design culture but Munari wanted to redefine them as he felt their specific meanings had become ambiguous.

Tradition

Mari's ideas not only exist conceptually but in practical everyday objects such as chairs, tables etc. His ideologies and beliefs are ingrained in his work. Most of his designs are still in production due to their enduring design features. The most fundamental question that Mari asked was: why do this and how will it benefit society? Mari is an unusual artist, a humanist, whose work reflects on philosophical tradition rather than on style.

Many similarities exist between Mari and Munari. They both 'played' within their research. Mari approached design as ongoing experimentation. He sought to show that art is a form of knowledge for society. Burkhardt...et al state that through his ideologies he examined rationalization and objectivity in terms of a battle that pressed for art to be accepted as a collective value²⁹. Rather than working for personal gain, Mari focused on designing for the benefit of all society.

Mari's research was guided by his inclusion of all the components of a process into his work. Through his progressive identification Mari applied his 'Art as Knowledge' philosophies to his design work. The final result was the outcome of what Mari called the Darwinian criteria, a process in which the most suitable elements survive³⁰. He started from the assumption that within every project request he would find motives to establish a formal design system.

The design quest searched for archetypal forms and not for 'the different' unless it was a 'new object', in which case the approach would be to design the 'new object' as an archetype. His objective was always to design for the benefit of society³¹. Mari's philosophy inspired my own design process. I created a simple rectangular form to symbolise the drawer. This form became my archetypal drawer and the basis of the research project.

²⁹ Burkhardt, F & Capella, J & Picchi, F. *Why Write a Book About Enzo Mari*. Milan: Federico Motta Editore, 1997. p36.

³⁰ *Ibid*, p 76.

³¹ *Ibid*, p 76.

Craftsmanship

Mari believes ‘the designer is the trustee of collective knowledge’.³² He rejects ‘style’ design. His method is to go directly to a source of knowledge. Burkhardt stated:

‘For Mari the terms of evolution of an object are measured in thousands of years; the designer is part of a slow perfecting process, party to a collective knowledge that he has inherited and that he intends to embrace, critically placing himself as the trustee of that culture that has been expressed in the centenary evolution of the object’³³.

With his ‘*Proposta per la lavorazione a mano della porcellana*,’³⁴ a series of china bowls named ‘Samos’ from 1973, Mari investigated the craft of producing china bowls.

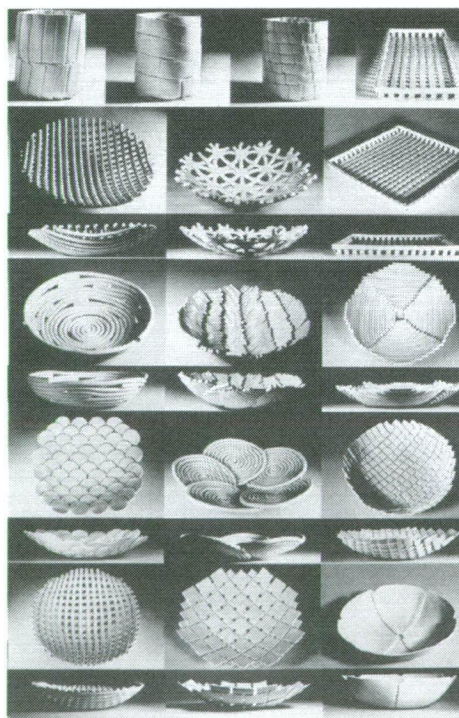


Figure 8

³² Burkhardt, F & Capella, J & Picchi, F. *Why Write a Book About Enzo Mari*. Milan: Federico Motta Editore, 1997. p164.

³³ *Ibid*, p 166.

³⁴ *Ibid*, p 128.

He researched the use of ancient techniques and traditional materials. As opposed to craft, which allows final forms to be made by individual craftsman, the fabrication of an object by industry requires the form to be resolved before production. The driving force behind Mari's work has always been his inclusion of tradition and craft. The communication of his objects 'serve to convey the meaning'³⁵ of traditional skills.

Throughout my research I looked for a material which would allow me to make my drawers traditionally using manual craftsmanship. It was integral to the project to have complete flexibility within the design process to maintain a modifiable evolution of form development. I found the freedom I was looking for in wood, a material conducive to a variety of shapes and craft techniques. Using traditional woodworking skills I was able combine craft with my knowledge of contemporary design.

³⁵ Burkhardt, F & Capella, J & Picchi, F. *Why Write a Book About Enzo Mari*. Milan: Federico Motta Editore, 1997. Pp194-195.

Understanding through experiment

In 1974 Mari was involved in an 'autoprogettazione,' which translates as 'self-design' and represents a design experiment. Burkhardt observed that this idea came from 'in many ways, an exasperated gesture in the face of consumption'³⁶, as Burkhardt wrote. Mari was interested in encouraging people to build their own furniture. The aim was to show the process behind designing and making. He felt that by allowing the general public to create their own furniture with wood and nails, they would develop a sense of ownership and a better understanding of production.



Figure 9

Mari designed an instruction booklet with nineteen models such as beds, tables and chairs. He believed anyone could be a creator and asked those who built furniture from his book to send him a photograph of their work.

³⁶ Burkhardt, F & Capella, J & Picchi, F. *Why Write a Book About Enzo Mari*. Milan: Federico Motta Editore, 1997. p202.

The project was an attempt to improve people's skills and to bond the creator with their object. Although response to the project was high, Mari estimated only one percent understood his intention³⁷.

In 2002 Mari republished his booklet 'autoprogettazione'. He wrote: 'although people took part at the time, in large numbers and with enthusiasm, the reasons that had pushed me to carry out the proposal certainly have not changed: in fact they have worsened'³⁸.

Mari's project inspired me to ask, how can I create a better understanding of my objects and how can I create a relationship between objects and people which will translate into a sense of ownership? Mari wanted for people to build their own furniture in the hopes it would give society a critical eye for production. As Mari wrote: 'The quality–quantity ratio is central to the whole industrial production: quality is determined when the shape of products does not "seem" but simply "is" '³⁹. My project was not focussed on the assembly of objects, but on sharing my design process, with the aim of inviting the viewer to develop a better understanding of design and its value.

³⁷ Burkhardt, F & Capella, J & Picchi, F. *Why Write a Book About Enzo Mari*. Milan: Federico Motta Editore, 1997. p202.

³⁸ Ibid, p 202.

³⁹ Enzo, M. *autoprogettazione*. Mantova: Edizioni Corraini. Second editino, 2002. p 5.

Towards Art

The artists Donald Judd and Sol LeWitt have also been important to this project. Both are associated with the Minimal and Conceptual Art movements. They believed that a work of art should be completely conceived by the mind before its execution'⁴⁰. Their understanding of the relationship between design and art was significant to my development of my research.

Judd's work had a specific impact on this project as he was an artist who also designed furniture. His art and furniture sheared common futures that merge art and design, Judd wrote 'Of course if a person is at once making art and building furniture...there will be similarities'⁴¹. His aim was to separate his furniture from his sculptural artwork, however, I see his work in the context of 'artistic furniture':

'I am often asked if the furniture is art...I am often told that the furniture is not comfortable, and they are not functional...The furniture is comfortable to me. Rather than making a chair to sleep in or a machine to live it, it is better to make a bed. A straight chair is best for eating or writing. The third position is standing.'⁴²



Figure 10

⁴⁰ Smith, R in 'Conceptual Art' Stangos, N. *Concepts of Modern Art*. London: Thames and Hudson Ltd, 1997. p 256.

⁴¹ Judd, D in Huck, B. *Donald Judd Furniture Retrospective* Rotterdam: Museum Boymans – Van Beuningen, 1995. p 7.

⁴² Ibid, p 21.

Judd designed furniture retaining only the symbol of the object he represented. He reduced the object to its minimal form and use. His furniture was influenced by his sculptural artwork, 'one in which the individuality of the unique artwork is paradigmatic'⁴³ and which expressed ideas about art:

'...there is no form that can be form without meaning, quality, and feeling...it's a contradiction to make a form that is meaningless...There is work in which the visual and the literary are differently emphasised – and to me the more visual, the better - but there is no pure form. And of course pure content doesn't exist'⁴⁴

Donald Judd's 'specific objects' were three-dimensional objects in which he dealt with the illusion of space. As Cooke stated: 'Judd's ambition was to redefine the terms for making sculpture.'⁴⁵ These terms rendered a relationship between the object, the viewer and its surroundings. Judd's furniture was rendered in an identical way to his sculptural objects. In the series of 'Chairs' (10 examples) Judd designed simple arrangements of identical chairs which specified the 'sculptural' space underneath the chair.



Figure 11

⁴³ Cooke, L. *Donald Judd*. London: Waddington Galleries, 1989.

⁴⁴ Ibid.

⁴⁵ Smith, R in 'Conceptual Art' Stangos, N. *Concepts of Modern Art*. London: Thames and Hudson Ltd, 1997. p 256.

The bottoms of the chairs were arranged to create 10 spatial variations. These were divided by diagonal, horizontal and vertical separations which illuminated the whole but also sanctioned the viewing of individual objects.



Figure 12

Donald Judd's furniture remains as a form of art. He translated his art into design without the multiple responsibilities associated with design. The question whether his furniture should be seen as 'art' or 'artistic furniture' will remain, although Judd insisted his work is only furniture. Judd's endorsement of his artwork as a *whole*, works sufficiently for his artwork but remains unsolved for his furniture. Due to his personal interpretation of needs as meeting self, 'my furniture is comfortable to me'⁴⁶ he created a missing *part* of the *whole*.

I believe that Judd succeeded in designing 'artistic furniture' which merges elements of distinction of sculpture and design. With my drawers I endeavored to create 'artistic furniture' autonomous to a specific style or era. Informed by Judd's use of multiple forms, I used repetition in the process. Like a mathematical equation, my 'constant' was the shape of the drawer while my variable was the chest, or surrounding structure. This method of design produced a related family of cabinets for the same drawer.

⁴⁶ Judd, D in Huck, B. *Donald Judd Furniture Retrospective* Rotterdam: Museum Boymans – Van Beuningen, 1995. p 7.

Observation

Like Munari, Sol LeWitt also created work that invites curiosity, observation and creativity. In his book 'The Location of Lines'⁴⁷ LeWitt describes the location of a single line in relation to its page, 'A line from the lower left corner to the upper right corner'. Through systematic repetition, LeWitt's line description led to the development of a language which eventually described the location of a drawing line on the space of the page.

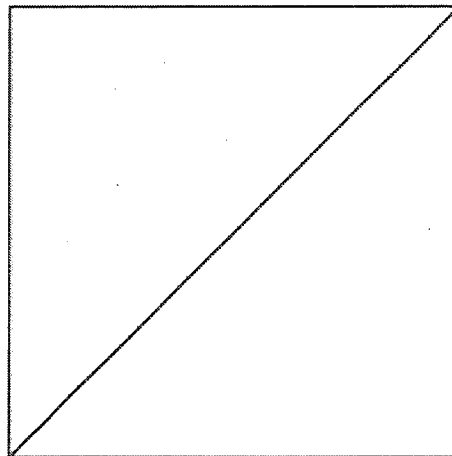


Figure 13

This process was essential to serve LeWitt's conceptual idea: the description of a single line. LeWitt's line description becomes an essential 'tool' that helped me articulate my ideas and investigate the form of the drawer as conceptual art rather than technical design. This method of exploration allowed the process to exist, without the consideration of 'designing' any object.

⁴⁷ LeWitt, S. *The Location of Lines*. London: Lisson Publications, 1974.

My artistic intention as a designer is to articulate my means of design through process. I want my design to express ideas through form and to convey knowledge and social beliefs that invite a harmonious relationship between people and objects. LeWitt's 'Paragraphs on conceptual art' were important to this aspect of my research. LeWitt said:

'In conceptual art the idea or concept is the most important aspect of the work...all planning and decisions are made beforehand and the execution is a perfunctory affair. The idea becomes the machine that makes the art...'⁴⁸

Using the rectangle as a constant form allowed me to develop visual language that communicated my conceptual idea of the drawer. Through the use of this symbol I aimed to help the viewer gain insight into my ideas. The simple rectangular form represents an archetypal drawer for the viewer.

A definition of 'what is design?' could be: rationalization with an emphasis on engineering and science. In conceptual art the idea is the most important aspect of the work. By using an archetypal drawer, I set to discover a new approach to design. LeWitt's method provided the type of approach I was looking for:

'Adherence to LeWitt's system does not validate a scientific principle or ensure technical perfection. For LeWitt, an idea may be mathematically or scientifically invalid, but as long as the executor follows the system established by the artist, a true expression of the idea is produced. The intent is to make good art.'⁴⁹

⁴⁸ LeWitt, S. 'Object and Reductivism' in Harrison, C. and Wood, P. *ART in THEORY 1900 – 2000 An Anthology of Change Ideas*. Malden: Blackwell Publishing. 1997, p 846.

⁴⁹ SFMOMA presents first Sol Lewitt retrospective in 20 years, press release 1999.
http://www.sfmoma.org/press/press/press_lewitt.html (Viewed on 15/03/04)

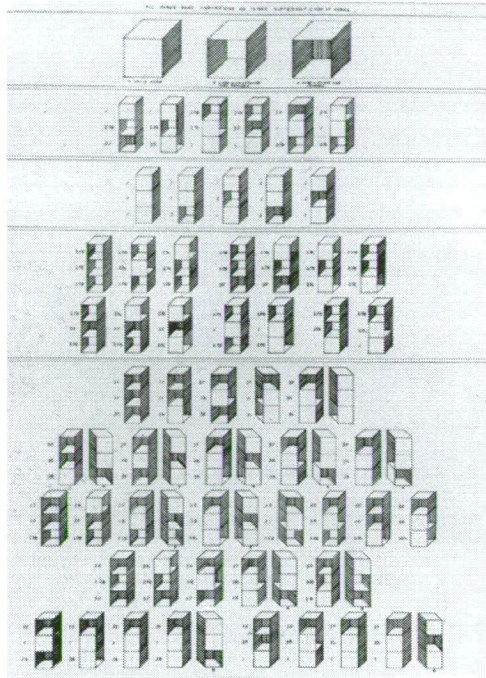


Figure 14

LeWitt's 'Three part variation on three different kinds of cubes' was a two-dimensional drawing in which he dealt with three types of cube: a solid cube, a cube with opposite sides removed and a cube with one side removed. The work was a form exercise that created a system to produce variations of three cubes stacked on top of each other. By using this system LeWitt composed modifications of the cubes, demonstrating an evolution of discernible ideas. The collection of cubes assert a variation between a two dimensional plan (the closed cube) with a three dimensional plan (the open cubes).

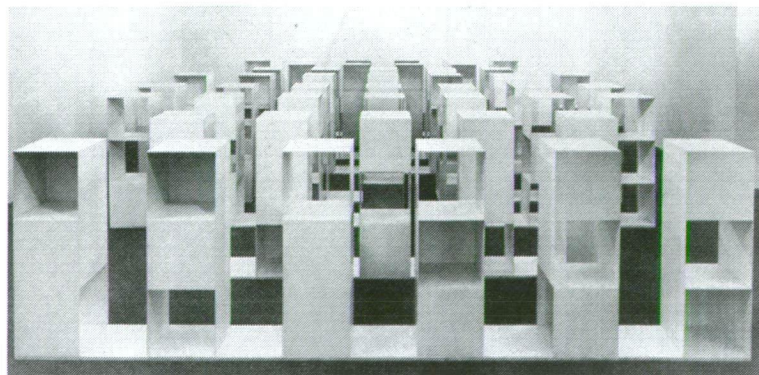


Figure 15

Many of LeWitt's ideas were planned before the making of the work. I refer to his works as a delicate balance between the perceptual and conceptual. His ideas motivated the making and the process in the pursuit of visual beauty and inventive creation articulated the making. My process of working with paper cuts and sketches parallels LeWitt's conceptual approach. This process reflects my search for the symbolic drawer. The process used the rectangular form to create a narrative that revealed the evolution of my design within the process.

The process I used aimed to make 'good design' that conveys a balance between conceptual ideas and the responsibilities of the designer. Despite the freedom of my process I aspired to create responsible objects.

Each of the artists discussed in this chapter Bruno Munari, Enzo Mari, Donald Judd and Sol LeWitt influenced my understanding of design and the design process to varying degrees. They provided a structure that has created a context for my work and their insights have contributed to my understanding of the links between art and design.

Chapter three: Studio practice

The process

The design process is usually not revealed by the designer and remains as a conversation between the manufacturer and designer. Through this evolutionary research process I have attempted to create a journey that blurs the boundaries between design and art. I looked at design as a form of art, not only exclusive of function, but also without taking on the responsibilities of commercial production. I questioned the conceptual idea of a 'designer without responsibilities' and sought new boundaries within creativity.

One of the essential components of my design process is the sketch. It is the source of the form which will evolve into the object I am designing. My sketches are places where my concepts are generated, places that contain the essence of design and a place where I develop ideas. The purpose of the sketch is to create an impression of the object which is abstract in my mind, yet close to reality. It is also a tool that permits randomness and creativity.

At the beginning of my journey I worked on creating a symbol of the drawer, considering how to transfer the drawer into an icon or a sign. The symbol was a step to catch the viewer's eye, asking for attention. I used this symbol as a visual form of communication in effort to create a conversation with the viewer. I used the symbol to represent the familiar. It is an optical illusion which manipulates the eye. The symbol was the place I started my evolutionary research process. I looked for the identity of a drawer and the origin from where my narratives would emerge.

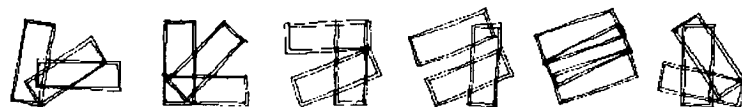


Figure 16

The symbol was a tool for exchanging my ideas and to provide essential information for the development of my design process. I sketched a rectangle to represent a drawer. It was an intuitive, yet random decision. Intuition, which I consider a form of creativity, was an important part of my design process. I started to make rectangular paper cuts, using them to create different compositions.

At this point I began to establish boundaries; these became the guidelines of my design process. I established a rule that I would always work with the same rectangle. I also decided to create a family of drawers, so I used a minimum of three drawers within each piece. The idea of a family was important to my process because it enabled me to challenge the interpretation of the drawer and the relationships between each single drawer within the whole, which was the cabinet.

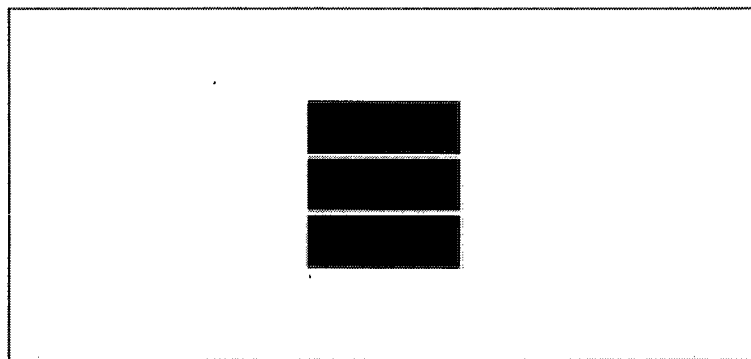


Figure 17

As a family, the drawers created new ways of demonstrating simple ideas. I performed a compositional exercise with the three basic rectangular paper cuts to represent my drawers. The repetition of this feature in my geometrical abstract exercises developed from one sketch to the other. The use of a constant rectangle created rhythm, a melody of form similar to animation, a created film. The film was the evolution of my drawers.

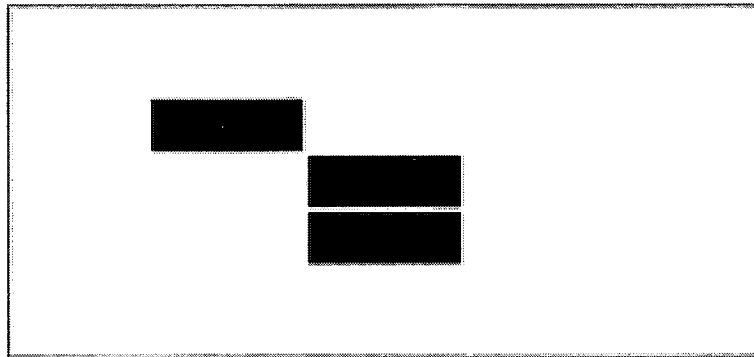


Figure 18

During my research I designed many paper cuts, searching from numerous variations and combinations for the simplest and clearest forms to represent my conceptual ideas. By reducing the cabinet to minimum components I was able to isolate the aesthetic and decorative components. This further developed my observation and understanding of the drawer. By analyzing the series of sketches I tried to comprehend all that was revealed including lines, proportions, points and positive and negative space. At this stage, my sketches were forms without design. They were only a concept: a form of art.

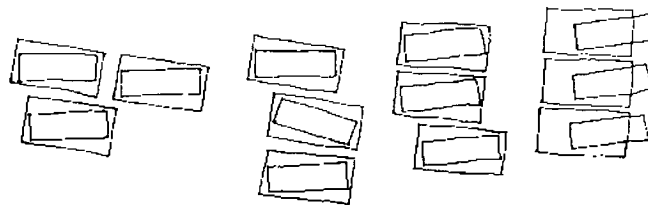


Figure 19

These drawing experiments created a dialogue between my conceptual ideas and the narratives for my designs. They enabled me to express ideas instinctively. The design process helped me identify the ideas I intended to share with the viewer and the values of the design process as a form of art. The drawings aimed to invite curiosity and observation. Only after my sketches and paper cuts were fully developed, I took on the multiple responsibilities of the designer, thus merging art and design.

Narrative

The relationship between art and design facilitated the creation of new stories, which combined my process (Art) and the drawer (Design). In a way I have created a vast array of cross-sections, all of which translate into the drawer as art and design. My conceptual idea was to discover new drawers through experimentation with a single form. It was an overlap, an endless journey. Through this design process, ideas increased exponentially the more I sketched. The nine pieces I created represent only a small selection from the total results.

I looked at the cabinet as the container for a set of drawers. It is a 'container that contains'. My narratives and research progressed from this observation and led me to separate the drawer and the 'carcase' into two separate identities. I studied these separate identities through my paper cuts and sketches and examined the relationships between them. I created new narratives and experiments, delving deeper into the 'gap' that I created between the drawer and the carcase.

I began to ask questions such as: Why are the drawers rectangular? Does the drawer have to be parallel? Can I make a diagonal drawer? Is the drawer a hiding place? Why do we forget and lose objects in the drawer? Do the static objects inside the drawer bear any relationship to the carcass? Why do we forget to close the drawer? Must the drawer be closed? I questioned the relationship between the drawer and the carcass.

I conjured many narratives without the use of words, I translating thoughts and questions into paper cuts and sketches. For example, I considered the drawers as a nest, a family – mother, father and child. I also created paper cuts similar to the moves of the knight on the chessboard to suggest a chest of drawers, drawers which attempt to voice support through reliance and friendship. I asked in which direction should the drawer open? Where is the front of the drawer? What is the relationship between the drawer and the handle? The design process created a tremendous variety of possibilities; the same rectangle evoked endless stories through its range of positions and compositions. I separated art and design, but the journey was a constant attempt to combine the two. As Burkhardt said about Enzo Mari:

‘The work appears as the moment when the experience of art and all reality confront each other dialectically, always suspended between two extremes: reality and the utopistic vision. In his work it is always the global point of view that prevails, touching the ideologies, rules and facts implanted in one’s aesthetic working’⁵⁰.

I established an evolutionary research process that developed from symbol to sketch to story and resulted in the production of a series of drawers that reflect the complexity of the relationship between the design process and art. The complexity is demonstrated in the constant pursuit for harmony between my experience as an artist and my aim to design meaningful objects for society.

⁵⁰ Burkhardt, F & Capella, J & Picchi, F. *Why Write a Book About Enzo Mari*. Milan: Federico Motta Editore, 1997. Pp 195-197.

The Making

My symbolic approach and search for a simple form required materials that would be aesthetically harmonious with my design process. I envisaged my objects could be made by local, small furniture designer/makers in the hope to create a union between consumers and makers. It was a challenge to make and think locally in today's global perception of mass production.

My method of wood selection was a process similar to that of the painter or sculptor searching for the perfect brush, paint or canvas. These choices became the 'palette of colours' I used to articulate my designs. My intention was to create a relationship between my thoughts and the objects I was making. I sought ways to create objects that would have a lifetime of use. The material choice was integral to my personal methodology as a designer; I used it to convey the longevity of my pieces to the user. I believe the materiality of an object affects society and the way we view sustainable objects.

I investigated a wide range of materials to use for the fabrication of my designs. Through my design process I sought an optimum material which could reflect a connection between my process and design. By separating each and all parts of these designs I was able to make closer observations of the elements. This allowed for the study of each component of my layout diagrams. It was like creating order from a chaotic, abstract thought. Each part individually had a responsibility to itself and by combining the parts together I created a relationship as a *whole*.

My research led me to wood, a material with historical integrity. I felt a man-made composite would not reflect the honesty of my process. Wood also allowed for the combination of craftsmanship and machine. Craftsmanship enabled the use of traditional making skills. I selected solid wood over veneer due to its longevity. Solid wood is forgiving. Unlike veneer, it allows for the restoration of marks and the removal of dents. It was imperative that the works had the potential to be conserved. Under duress the surface of veneer chips and splits, small damages from wear make the objects unusable. I wanted to make furniture that could grow old with the owner, furniture with the potential to be restored and cared for.

As noted previously, I explored the idea of the cabinet as a carcass and the drawer within the carcass as separate identities. Wood has a wide range of colours, for example the colour of Blackwood ranges from white sapwood to lighter tan through to a very dark, almost black colour. I chose moderate grain vigour and some lustre, to enable the darker Blackwood colour to dominate.

I distinguished between the drawer and the carcass by using a lighter coloured wood and a darker one: Celery Top Pine and Blackwood respectively. This created a contrast that defined the two elements. To illustrate my process I used wood in the same manner as my paper cuts, amplifying different types of wood for each one of the identities. The cabinet was made from Celery Top Pine and the drawer was Blackwood.

The contrasting woods created a visual separation between the drawer and its carcass. I chose Blackwood for its density and Celery Top Pine for its softness. I used Celery Top Pine for the runners due to the softness of the material. This allowed for future replacement of the runner as opposed to the remaking of the entire drawer. To maintain the integrity of the wood and my designs I used traditional craftsmanship without the use of an industrial 'drawer rail'. This resulted in drawers made exclusively for their own carcass.

I questioned the way people open drawers and considered how to retain the symbolic image of the drawer developed in my paper cut and sketches. Adding a handle to the drawer would have been like adding an artificial limb or a mutation. Hardware handles define their time period due to their material and current styling. My aim was to combine the handle and drawer into a single entity. I decided to separate the drawer from the carcass through the use of colour. I created a gap between each drawer to give it a separate identity. This gap became the handle of the drawer and maintained the simplicity of my original symbolic sketch based on the rectangle.

To actualize the concept for the drawer handle, a number of prototypes were required. The strength of the first handle prototype was questionable. The wood grain was fixed parallel to the direction of the drawer opening which resulted in the pulling away of the handle. My solution was to increase the thickness of the handle to add structural strength. This prevented breakage but resulted in a visual divide between the handle and the drawer. I resolved this problem by using the maximum thickness of wood that was necessary to prevent the handle from breaking. I kept the thickness of the wood in the centre of the handle, but reduced the depth at the edges where it was visible to the viewer. This became an optical illusion which created a negative space used for opening the drawer.



Figure 20

It was paramount that the internal structure of the drawers blended seamlessly with the overall form. The carcass required a continuous length of timber to be mitre-cut at the corners to allow the natural grain flow of the wood. The mitre joint maintained minimal visual disruption to the surface where as a common dovetailed joint would have disrupted the continuous flow. This detail permitted each set of drawers to exist as a simple outline.

My intention was to allow for the individual purchaser to gain ownership of the object through ongoing maintenance and care. Mass furniture manufacturers use a simple spray application of lacquer which affect the environment. The application of an ecologically friendly finish requires ongoing maintenance to preserve the wood and enhance the ageing of the object. I treated the wood with a Scandinavian tung oil finish. This resulted in a grain that can be viewed below the surface of the wood.

The overall success of the objects was tied closely to the chosen finish for the wood. The choice of surface treatment affected how light and reflection played off the object's shape. Different finishes gave different feelings to the work. The final step of sealing and oiling wood required several applications over a period of a few weeks. A traditional French polish finish would not be durable, as it does not withstand heat and is only available as a high gloss finish. Shellac produced a natural dark colour which would have overwhelmed the delicate colour of Celery Top Pine. My decision was to wax the wood as the final finish coat. The wax finish resulted in a tactile, silky finish which encourages frequent use. The texture of oiling and waxing gives the surfaces of the wood a natural feel and allows better control of the gloss finish. The drawer, made from Blackwood, was finished with a high polish and represents my black paper cuts. The carcass, made of Celery Top Pine, was contrasted with a low polish. I believe care creates a bond between objects and people.

The Drawer

The process of separating each and all *parts* of the design of my chests of drawers allowed me to focus more closely on my responsibilities as a designer. The elements were: form, function, need, material, manufacture and aesthetics. I merged these with my process. The main function of the drawer is storage. It is a container, a storage space. However my drawers have not been created for a specific function. They do not have traditional front, back or sides. This idea allows the drawer to be at different orientations.

As mentioned previously, for any object I considered designing, there is one question I always ask, 'why design this?' Countless numbers of drawers are already in existence, so it was necessary for me to question *why* I should produce one more.

I perceive contemporary design as a necessity driven by creativity and a discipline which has an emphasis on intellectual and conceptual thinking. I would like to create a better understanding for both designers and society about why design is a form of art. I tried through my static objects to invite curiosity, observation and thought. My objects are freestanding and each aspect of the drawers is equally important. The dialogue I have created between viewer and object is not just about the functionality of the drawer. I also hope to open dialogues which exchange my ideas and provide essential information about the development of my design and also extend beyond my objects to others that surround us in our contemporary society.

The visual aesthetic of my drawers came as a direct result of my design process. To symbolise the separate identities of the drawers and their cabinets, I created a gap between each of the drawers and differentiated the cabinets from the drawer through the use of colour. In this process I aimed to reduce the cabinet to minimum components, searching for the simplest form to open a dialogue. I attempted to create an identity for each cabinet which evoked a classic, useful, well-made object independent of trend, style and consumerism.

The 'Family':



Figure 21

In my endeavour to create a 'family' of drawers, these three objects can be considered as representing a nest - mother, father and child. The top drawer and the middle drawer are combined as one piece and the smallest drawer nests underneath this couple. The mobility of the smallest drawer creates a sense of freedom and individuality. The smallest drawer is part of the family and will discover its own identity one day as a single individual object.

The 'Millipede':



Figure 22

The *Millipede* is a three drawer piece. Each has a separate carcass. As individual objects they are unable to stand on their own as they have only one supporting leg. In order to function they need to interrelate with each other, supporting one another. They represent friendship articulated by a bond. Each drawer is an individual, establishing its own identity separate from the whole. The drawers face in slightly different directions, breaking the two-dimensional flatness of the cabinet front. In *Family*, the identity of the smallest drawer represents a sense of freedom when it is discovered that it is separate from the main body of the piece; however the *Millipede* is permanently fixed together and creates an illusion of balance. I have made this cabinet a static composition, a sculpture which functions as furniture.

The 'Aberrant Drawer':



Figure 23

The *Aberrant Drawer* experiments with the cabinet as an object with multiple functions. I asked, 'Where does the cabinet stand?', 'What is its location in the space or room?' I decided to create drawers which could function as space dividers, becoming objects that were ambiguous in location and space. The cabinet contains four drawers and it is an object that breaks the rule of working with a family of three. It is the *Aberrant Drawer*. By creating two drawers for each side with the possibility of opening the drawer solely from the 'front' of each side, the following questions were raised: Where is the front of the cabinet? How is the cabinet positioned in the room or space? The *Aberrant Drawer* plays with the idea of the back and the front; it uses different orientations from traditional cabinets and creates a sense of ambiguity about the front, the back and the side of the chest. All sides of the *Aberrant Drawer* can be the front, inviting viewers to decide for themselves how the object functions in their private space.

The 'Never Close':

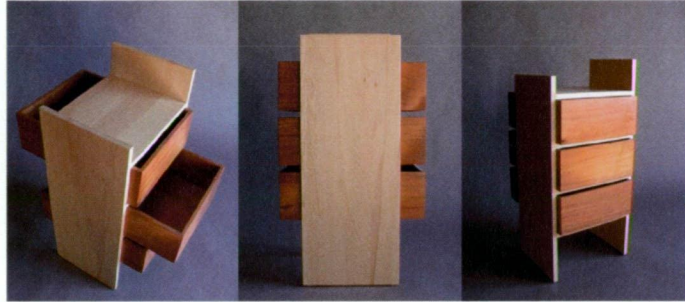


Figure 24

During my research I also questioned the various functions of the drawer. I asked, 'Is the drawer a hiding place?' Why do we forget and lose objects in the drawer?' 'Do the static objects inside the drawer bear any relationship to the carcass?' 'Why do we forget to close the drawer?' 'Must the drawer be closed?' These questions are addressed in the piece *Never Close*. In this work I explored the relationship between the sides of the cabinet and its drawers. I rotated the drawers so they could open on each side. The length of the drawer is longer than the carcass width, which exposes a portion of the drawer on either side. The gap in between each one of the drawers functions as its handle. The drawer exposes the objects contained within. *Never Close* plays with the composition and the location of drawers within a cabinet.

The 'Hide and Seek':

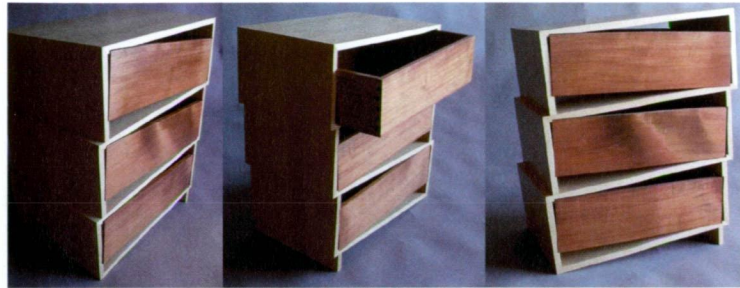


Figure 25

For *Hide and Seek* I asked the questions, 'Should the cabinet or the drawers be horizontal to the floor?' 'Can I make a diagonal drawer?' *Hide and Seek* explored the relationship between the cabinet and the floor and how this affects the way in which the cabinet accepts the drawer. The drawer was housed into position at the four outer contact points, thus floating within the rectangle. The gaps provide handle access, enabling opening from both sides.

The 'Floating Drawer':



Figure 26

The *Floating Drawer* is a sphere. The carcass and the drawer are separated, each seeking its own identity. Viewing the drawers from the front of the cabinet shows them to be surrounded by the carcass. When seen from the side, the drawers are beyond the boundaries of the structure. In this work I looked at the cabinet as the shell that contains a set of drawers. The side gap between the cabinet and the drawer create a negative space. The carcass and drawers coexist as both individual and connected objects.

The 'Negative Space and Drawer':



Figure 27

In this work, the top space steps out from the carcass by the penetration of a vertical leg. This creates a drawer on the left and a negative space on the right. My aim was to create a cabinet as an object with multiple uses, functioning not only as storage space and but also additional space within the cabinet. I asked, 'Is there a missing drawer or a negative space?' This new space becomes the centre of attention, like an invisible drawer.

The 'Paper Cut':

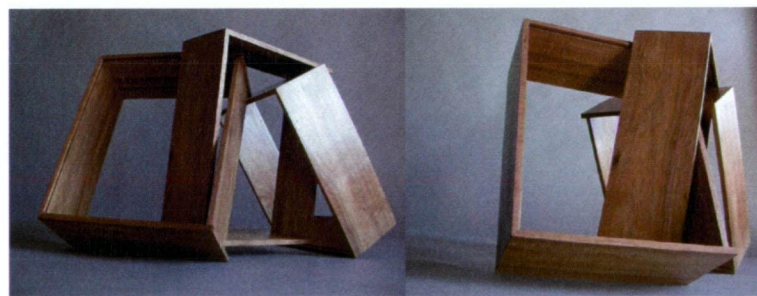


Figure 28

The *Paper Cut* was a sculpture that consisted of three drawers linked together. This work represents the repetition of my rectangular paper cuts and sketches. It demonstrates the development of my design process. It is an exercise in composition using three basic rectangles developed. It is an intuitive object that takes on different configurations. It has no function and was without a drawer. It is a single snapshot, a frame in the evolution of my drawers. It is a symbol of utopia.

The 'Cabinet':

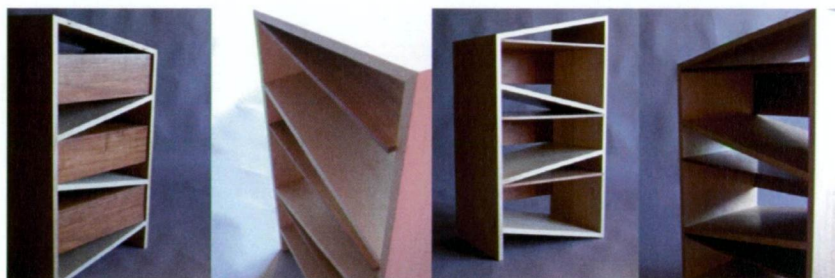


Figure 29

The *Cabinet* was constructed as a conceptual abstraction. The drawer did not exist; it is a sculpture of the drawer volume, demonstrating the rules without the appearance of the drawer. From the back, the illusion of 'a family' appears but the front displays an empty space without any drawers. The work invites viewers to ask: Where are the drawers? Is this a sculpture? Is it a storage space? Is this the end of the journey? The *Cabinet* is made like a sculpture or an abstract painting. It reflects the relationship between the process, the narrative and the making. It is the culmination of thoughts and questions I posed during my research and represents the essence of my ideas.

The Submission

The submission consists of the many drawings, sketches and paper cuts I made during the research process accompanied by the nine pieces of furniture discussed. The sketches act as storybooks, or 'biographies' for each set of drawers. All of the drawers use the rectangle as a means of expressing the visual investigation of my thoughts and ideas.

The stories will attempt to communicate the exploration of a single identity-the drawer- viewed from different perspectives. They show the design process existing beyond the boundaries of its most recognizable form: products constructed through the utilization of technology. In this body of work I have attempted to demonstrate the creative process associated with the development of a simple idea. The combination of furniture, sketches aims to illustrate my visual investigation of form through the drawer.

Chapter four: Conclusion

Conclusion

This project aimed to produce artwork through two posing questions. How is it possible to create responsible design? What are the responsibilities of the designer?

My research argues that design today has a significant responsibility beyond form, function and aesthetics. Designers are not only responsible for designing objects for our society but for educating society as well. The discipline of design needs to be viewed critically, as a form of art and as a tool that serves society.

The designer is in a special position between the maker/manufacture and the owner of the object and can influence both parties. The designer has the foremost influence over how things are made; the use of material; how they are constructed; and their longevity. My project has focused on these issues. By experimenting with an elementary household object - the drawer – I have demonstrated that a bond can be created between objects and people, which resulted in a designer aiming to generate meaningful objects for society.

The primary source for the research begins with the sketch; a simple rectangular paper cut symbolising the drawer. Through my sketches and drawers I have aimed to invite curiosity, observation, thought and to show how I merged my responsibilities as a designer with my conceptual ideas as an artist. Throughout the research process and the making, I explored each area of design responsibility in detail. By doing this I discovered that design is not only about form, function, materials, manufacturing and aesthetics, but that design is a conceptual intellectual art process and the designer is an artist.

My submission reveals what is often overlooked in design, a process that creates an open visual dialogue between the viewer and the object. The narratives, observations and sketches that show the evolution of the drawer two dimensionally allow me to share my ideas with the viewer. The displayed sketches and paper cuts are presented like a photo album, telling the story of my discoveries. My hope is to encourage dialogues, exchange ideas and provide essential information about the development of my design. Throughout this I have aimed to give soul to my 'sculptural' drawers which I believe will add to the understanding of the objects.

As a result of my research I will copy my drawing, sketches and paper cuts, print the display panels and bound them into book form. The book will be a place where I will share my 'Art as Knowledge' and my observations, in the simplest way. The book will be an exploration of my design process from the perspective of art and the book will act as an artefact of the journey.

I have looked for ways to enable people to develop a better understanding of objects through design and to encourage a sense of a commitment and ownership. I have tried, as a designer, to make furniture that will survive, which is my hope through this body of work.

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Fig. 3 (Untitled) *The responsibilities of the designer diagram*.

Fig. 16 (Untitled) *sketches*. Ink on Tracing paper, (29x10mm).

Fig. 17 (Untitled) *The family*. Three black rectangular paper cuts on white paper, (29x10cm).

Fig. 18 (Untitled) *The family*. Three black rectangular paper cuts on white paper, (29x10cm).

Fig. 19 (Untitled) *sketches*. Ink on Tracing paper, (29x10cm).

Fig. 20 (Untitled) *drawer*. Blackwood, (45x15x35cm).

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Curriculum Vitae

Exhibitions	2004	<i>2004 Design Exhibition, Melbourne Museum</i> -Annual selection of design within Australia.
	2004	<i>Young Designer Month, Hobart, Tasmania</i> -Annual selection of works within Tasmania.
	2003	<i>CAST-Contemporary Art Services Tasmania</i> -Members Group exhibition.
	2003	<i>Plimsoll Gallery, Hobart, Australia</i> -IXL ART exhibition.
	2002	<i>Fresh Exhibition, Melbourne Australia</i> -Annual selection of graduate works within Victoria.
	2002	<i>Designboom and Stotheby's, Milan, Italy</i> -International rocking chair exhibition Milan, Italy
Publications	2004	<i>Curve Magazine, Issue six, Australia</i> -Shapes and shades, drawings to enlighten. Feature article
	2003	<i>The World of Interiors Magazine, March Issue</i> -Antennae. Profile on up-coming designers.
	2002	<i>Pinta Magazine, Finland, October Issue</i> -Editorial
	2002	<i>Wallpaper Magazine, July Issue</i> - Profile on 20 up-coming international designers.
Awards	2005	<i>Australia Council for the Art</i> -Residence grant in New York,USA
	2002	<i>Designboom and Stotheby's Milan, Italy</i> - Received award from an international conceptual design competition for a rocking chair.
	2000	<i>Betzalel Academy of Arts and Design, Israel</i> -Brandenbery prize for excellence in young design.
Education	2003	<i>Tasmania School of Art</i> -Research higher degree. (MFA)
	2002	<i>Royal Melbourne Institution of Technology</i> -Industrial design (honours)
	2000	<i>Betzalel Academy of Arts and Design, Israel</i> -Bachelor of design, Department of Industrial Design